

SECTION 1. Identification of the substance/mixture and of the company/undertaking**Product name:** Slides (2) (CC1003)**Manufacturer/Supplier:**

Novus Biologicals

10771 East Easter Avenue

Centennial, CO 80112, USA

Phone: 1-888-506-6887

Information department: Technical Support**Emergency telephone number:** (800) 424-9300 or 911**SECTION 2. Hazards identification****Classification of the substance or mixture:***This product is not classified according to the Globally Harmonized System (GHS)***Classification according to EC No. 1272/2008**

This product does not meet the criteria for classification in any hazard class according to Regulation (EC) no. 1272/2008 on classification, labelling and packaging for substances and mixtures and are below the regulatory threshold limits described by Occupational Safety Health Administration Hazard Communication standard 29 CFR 1910.1200. However a safety data sheet is being supplied for it upon request as it contains a substance for which there is a Union workplace exposure limit.

Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

Label elements*Labeling according to EU guidelines:**Observe the general safety regulations when handling chemicals**The product is not subject to identification regulations pertaining to regulations on hazardous materials.***Classification system****NFPA ratings (scale 0-4)***Health = 0**Flammability = 0**Reactivity = 0***Other hazards:**

This product contains material(s) of animal and human origin which have been rendered inactivated thru chemical fixation methods. Observe general safety guidelines for protection when handling this product.

SECTION 3. Composition/information on ingredients			
Chemical characterization: Mixtures			
<i>Description: Mixture of the substances listed below with nonhazardous additions</i>			
CAS No.	Description	EC No.	%
N/A	Slides	N/A	N/A
SECTION 4. First aid measures			
General information			
<i>No special measures required</i>			
After skin contact: Immediately wash with water and soap and rinse thoroughly.			
After eye contact: Rinse opened eye for several minutes under running water.			
After swallowing: If symptoms persist consult doctor.			
After inhalation: Seek medical treatment in case of complaints.			
SECTION 5. Firefighting measures			
Suitable extinguishing agents			
<i>CO₂, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.</i>			
Special hazards arising from the substance or mixture: No further relevant information available.			
Protective equipment: No special measures required.			
SECTION 6. Accidental release measures			
Personal precautions, protective equipment and emergency procedures: Not required.			
Environmental precautions: Wipe up with damp sponge or mop.			
Methods and materials for containment or cleaning up: No special measures required.			
Reference to other sections:			
<i>See Section 7 for information on safe handling.</i>			
<i>See Section 8 for information on personal protective equipment.</i>			
<i>See Section 13 for disposal information.</i>			
SECTION 7. Handling and storage			
Handling			
Precautions for safe handling: No special measures required.			
Information about protection against explosions and fires: No special measures required.			
Requirements to be met by storerooms and receptacles: Store at -20C.			
Information about storage in one common storage facility: Store away from oxidizing agents.			
Further information about storage conditions: Store at -20C in a well-sealed container.			
Specific end use (s): No further relevant information available.			

SECTION 8. Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: The lists that were valid during the creation were used as basis.

Personal Protective Equipment**General protective and hygienic measures**

The usual precautionary measures for handling chemicals should be followed.

Breathing equipment: Not required.

Protection of hands:

Chemical resistant gloves (i.e. nitrile or equivalent)

Eye protection:

Safety glasses, tightly sealed goggles.

Body protection: Protective work clothes (lab coat).

SECTION 9. Physical and chemical properties**General Information****Appearance:**

Form	Glass
Color	Clear
Odor	Odorless
pH-value	Not applicable
Flash point	Not applicable
Flammability (solid, gaseous)	Not applicable
Ignition temperature	Not determined
Auto ignition	Product is not self-igniting
Danger of explosion	Product is not explosive.
Vapor pressure at 20C (68F)	Not determined
Density	Not determined
Vapor Density	Not determined
Evaporation rate	Not determined
Solubility in / Miscibility with water	Not miscible or difficult to mix
Solvent contents:	
Organic solvents	0.0%
Other information	No further relevant information available

SECTION 10. Stability and reactivity

Thermal decomposition/conditions to be avoided: No decomposition if used according to specifications.

Incompatible materials: Incompatible material: strong oxidizers.

Hazardous decomposition products: No dangerous decomposition products known

SECTION 11. Toxicological information	
Acute toxicity	
Primary irritant effect:	
Skin: No irritating effect	
Eye: No irritating effect	
Sensitization: No sensitization effects known.	
Additional toxicological information: This product is not subject to OSHA classification according to internally approved calculation methods for preparations.	
When used and handled according to specifications, the product does not have any harmful effects according to our experience and information provided to us.	
SECTION 12. Ecological information	
The ecological effects have not been thoroughly investigated, but currently none have been identified.	
General notes: Generally not hazardous for water.	
SECTION 13. Disposal considerations	
Waste treatment methods:	
Recommendation: Should be disposed of with solid waste. Disposal of material in accordance with federal (40 CFR 261) state and local requirements. This product is not considered a RCRA hazardous waste.	
Uncleaned packages: Recommendation: Disposal must be made according to state and federal regulations.	
Recommended cleansing agent: Water, if necessary with cleansing agents.	
SECTION 14. Transport information	
UN-Number	
DOT, ADR, ADN, IMDG, IATA	Void

UN proper shipping name	
DOT,ADR, ADN, IMDG, IATA	Void

Transport hazard class (es)	
DOT, IMDG, IATA, ADR, ADN	Void

Packing group	
DOT, ADR, IMDG, IATA	Void

Environmental hazards:	
Marine pollutant:	None

Special precautions for user	Not applicable

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	
	Not applicable

SECTION 15. Regulatory information	
SARA Section 355 (extremely hazardous substances):	<i>None of the ingredients listed.</i>

SARA Section 313 (specific toxic chemical listings)	<i>None of the ingredients listed</i>

TCSA (Toxic Substance Control Act): <i>listed</i>	<i>None</i>

California Proposition 65 – Chemicals known to cause cancer:	<i>None of the ingredients is listed.</i>

Chemicals known to cause reproductive toxicity for females:	<i>None of the ingredients listed.</i>

Chemicals known to cause reproductive toxicity for males:	<i>None of the ingredients listed.</i>

Chemicals known to cause developmental toxicity:	<i>None of the ingredients listed</i>

Carcinogenic categories:	
ARC (International Agency for Research on Cancer):	<i>None of the ingredients listed</i>
NTP (National Toxicology Program):	<i>None of the ingredients listed</i>
TLV (Threshold Limit Value established by ACGIH):	<i>None of the ingredients listed</i>
Product related hazard information:	
<i>Observe the general safety regulations when handling chemicals. The product is not subject to identification regulations pertaining to regulations on hazardous materials</i>	
National regulations – Water hazard class:	<i>Generally not hazardous for water</i>

SECTION 16. Other information	
<i>To the best of our knowledge, the information contained herein is accurate. However, Novus Biologicals does not assume any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.</i>	
Abbreviations and acronyms:	
<i>ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)</i>	
<i>RID: Règlement international concernant le transport des marchandises dangereuses par de fer (regulations Concerning the International Transport of Dangerous Goods by Rail)</i>	
<i>IMDG: International Maritime Code for Dangerous Goods</i>	
<i>IATA: International Air Transport Association</i>	
<i>ICAO: International Civil Aviation Organization</i>	
<i>ACGIH: American Conference of Governmental Industrial Hygienists</i>	
<i>CAS: Chemical Abstracts Service (division of the American Chemical Society)</i>	
<i>NFPA: National Fire Protection Association (USA)</i>	

SECTION 1. Identification of the substance/mixture and of the company/undertaking**Product name:** H₂O₂ /Urea Tablets (AHTAB20)**Manufacturer/Supplier:**

Novus Biologicals

10771 East Easter Avenue

Centennial, CO 80112, USA

Phone: 1-888-506-6887

Information department: Technical Support**Emergency telephone number:** (800) 424-9300 or 911**SECTION 2. Hazards identification****Classification of the substance or mixture:***This product is not classified according to the Globally Harmonized System (GHS)***Classification according to EC No. 1272/2008** Xn ; Harmful*R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.***Classification system:***The classification was made according to the latest editions of international substances lists expanded upon from company and literature data.***Label elements***Labeling according to EU guidelines:**The product has been classified and marked in accordance with regulations on hazardous materials.***Code letter and hazard designation of product:** Xn Harmful Oxidizing**Hazard-determining components of labeling:**

Hydrogen Peroxide

Risk phrases:*20/21/22: Harmful by inhalation, in contact with skin and if swallowed.***Safety phrases:***9 Keep container in a well-ventilated place.**23 Do not breathe gas/fumes/vapor/spray.**36/37 Wear suitable protective clothing and gloves.**60 This material and its container should be disposed of as hazardous waste.***Classification system****NFPA ratings (scale 0-4)**

Health = 3

Flammability = 0

Reactivity = 2

SECTION 3. Composition/information on ingredients**Chemical characterization: Mixtures****Description:** Mixture of the substances listed below with nonhazardous additions

CAS No.	Description	EC No.	%
7722-84-1	Hydrogen Peroxide  Xn R40  F H302  H314; H333	231-765-0	0.05%

SECTION 4. First aid measures**General information**

Symptoms of poisoning may even occur after several hours; therefore provide medical observation for at least 48 hours after the accident.

After skin contact: Immediately wash with water and soap and rinse thoroughly.

After eye contact: Rinse opened eye for several minutes under running water.

After swallowing: Seek immediate medical advice.

After inhalation: Supply fresh air. If required provide artificial respiration. Keep patient warm. Seek medical advice. In case of unconsciousness place patient on side position for transport.

SECTION 5. Firefighting measures**Suitable extinguishing agents**

CO₂, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture: Formation of toxic gases is possible during heating or in case of fire.

Protective equipment: No special measures required.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Not required.

Environmental precautions: Wipe up with damp sponge or mop.

Methods and materials for containment or cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protective equipment.

See Section 13 for disposal information.

SECTION 7. Handling and storage**Handling****Precautions for safe handling:**

Ensure good ventilation/exhaustion at the workplace and prevent formation of aerosols.

Information about protection against explosions and fires:

No special measures required.

Requirements to be met by storerooms and receptacles: Store at -20C.

Information about storage in one common storage facility: Store away from oxidizing agents.

Further information about storage conditions: Store at -20C in a well-sealed container.

Specific end use (s): No further relevant information available.

SECTION 8. Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

Components with limit values that require monitoring at the workplace:

7722-84-1 Hydrogen Peroxide	
PEL 0	Short term value: 1.39mg/m ³ Long term value: 1.39mg/m ³ TWA 1 ppm(1.4mg/M ³)

Additional information: The lists that were valid during the creation were used as basis.

Personal Protective Equipment**General protective and hygienic measures**

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Breathing equipment: Not required.

Protection of hands:

Chemical resistant gloves (i.e. nitrile or equivalent)

Eve protection:

Safety glasses, tightly sealed goggles.

Body protection: Protective work clothes (lab coat).

SECTION 9. Physical and chemical properties	
General Information	
Appearance:	
<i>Form</i>	<i>Solid</i>
<i>Color</i>	<i>White</i>
<i>Odor</i>	<i>Odorless</i>
<i>pH-value</i>	<i>6.2</i>
<i>Flash point</i>	<i>Not applicable</i>
<i>Flammability (solid, gaseous)</i>	<i>Not applicable</i>
<i>Decomposition temperature</i>	<i>Not determined</i>
<i>Auto ignition</i>	<i>Product is not self-igniting</i>
<i>Danger of explosion</i>	<i>Non combustible, but an oxidizer</i>
<i>Solubility in / Miscibility with water</i>	<i>Soluble</i>
<i>Solvent contents:</i> N/A	N/A
SECTION 10. Stability and reactivity	
Thermal decomposition/conditions to be avoided: No decomposition if used according to specifications.	
Incompatible materials: Incompatible material: strong oxidizers, acid materials and metals	
Hazardous decomposition products: No dangerous decomposition products know	
SECTION 11. Toxicological information	
Acute toxicity: LD/LD50 values that are relevant for classification: 7722-84-1 Hydrogen Peroxide Oral/LD50/ 2000 mg/kg (mouse)	
Primary irritant effect:	
Skin: No irritating effect	
Eye: Irritating	
Subacute to chronic toxicity: Target organs: eyes, skin, respiratory system.	
Additional toxicological information: The product shows the following dangers according to internally approved calculation methods for preparation: Harmful	

SECTION 12. Ecological information

The ecological effects have not been thoroughly investigated, but currently none have been identified.

General notes: Water hazard class 2 (self-assessment); hazardous for water.

SECTION 13. Disposal considerations**Waste treatment methods:**

Recommendation: *Should be disposed of with solid waste. Disposal of material in accordance with federal (40 CFR 261) state and local requirements. This product is not considered a RCRA hazardous waste. RCRA hazardous waste – RCRA# D004 (Arsenic)*

Uncleaned packages: Recommendation: *Disposal must be made according to state and federal regulations.*

Recommended cleansing agent: *Water, if necessary with cleansing agents.*

SECTION 14. Transport information**UN-Number**

DOT, ADR, ADN, IMDG, IATA **Void**

UN proper shipping name

DOT, ADR, ADN, IMDG, IATA **Void**

Transport hazard class (es)

DOT, IMDG, IATA, ADR, ADN **Void**

Packing group

DOT, ADR, IMDG, IATA **Void**

Environmental hazards:

Marine pollutant: **None**

Special precautions for user **Not applicable**

Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code **Not applicable**

SECTION 15. Regulatory information

SARA Section 355 (extremely hazardous substances):	None of the ingredients listed
SARA Section 313 (specific toxic chemical listings)	7722-84-1 Hydrogen Peroxide
TCSA (Toxic Substance Control Act):	None of the ingredients listed
California Proposition 65 – Chemicals known to cause cancer:	7722-84-1 Hydrogen Peroxide
Chemicals known to cause reproductive toxicity for females:	None of the ingredients listed
Chemicals known to cause reproductive toxicity for males:	None of the ingredients listed
Chemicals known to cause developmental toxicity:	None of the ingredients listed
Carcinogenic categories:	
IARC (International Agency for Research on Cancer):	7722-84-1 Hydrogen Peroxide
NTP (National Toxicology Program):	None of the ingredients listed
TLV (Threshold Limit Value established by ACGIH):	None of the ingredients listed A4
Product related hazard information:	the product has been classified and marked in accordance with regulations on hazardous materials.
Hazard symbols:	Xn Harmful
Hazard-determining components of labeling:	Hydrogen peroxide
Risk phrases:	20/21/22 Harmful by inhalation, in contact with skin and if swallowed
Safety phrases:	
	7/9 Keep container in a well-ventilated place.
	23 Do not breathe gas/fumes/vapor/spray.
	36/37 Wear suitable protective clothing and gloves.
	60 This material and container should be disposed of as hazardous waste.
Water hazard class:	Water hazard class 2 (Self-assessment): hazardous for water.

SECTION 16. Other information

To the best of our knowledge, the information contained herein is accurate. However, Novus Biologicals does not assume any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 RID: Règlement international concernant le transport des marchandises dangereuses par de fer (regulations Concerning the International Transport of Dangerous Goods by Rail)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 ICAO: International Civil Aviation Organization
 ACGIH: American Conference of Governmental Industrial Hygienists
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 NFPA: National Fire Protection Association (USA)

SECTION 1. Identification of the substance/mixture and of the company/undertaking**Product name:** DAB Tablets (AHDAB24)**Manufacturer/Supplier:**

Novus Biologicals

10771 East Easter Avenue

Centennial, CO 80112, USA

Phone: 1-888-506-6887

Information department: Technical Support**Emergency telephone number:** (800) 424-9300 or 911**SECTION 2. Hazards identification****Classification of the substance or mixture:**

Danger H341 Germ cell mutagenicity H350 Carcinogenicity

Classification according to EC No. 1272/2008

Danger limited evidence of carcinogenic effect

Classification system:

The classification was made according to the latest editions of international substances lists expanded upon from company and literature data.

Label elements

Labeling according to EU guidelines:

The product has been classified and marked in accordance with regulations on hazardous materials.

Code letter and hazard designation of product:

Danger

Hazard-determining components of labeling:*a*-Hydro-*w*-hydroxy-poly(oxy-1,2-ethanediyl),*n* ~3350

Biphenyl-3,3',4,4'-tetrayltertraammonium tetrachloride

Risk phrases:

20/21/22: Harmful by inhalation, in contact with skin and if swallowed.

Safety phrases:

9 Keep container in a well-ventilated place.

23 Do not breathe gas/fumes/vapor/spray.

36/37 Wear suitable protective clothing and gloves.

60 This material and its container should be disposed of as hazardous waste.

Classification system**NFPA ratings (scale 0-4)**

Health = 2

Flammability = 0

Reactivity = 0

SECTION 3. Composition/information on ingredients			
Chemical characterization: Mixtures			
Description: Mixture of the substances listed below with nonhazardous additions			
CAS No.	Description	EC No.	%
25322-68-3	<i>α</i> -Hydro-w-hydroxy-poly(oxy-1,2-ethanediyl),n ~3350	500-038-2	>=1- <5%
868272-85-9	Biphenyl-3,3',4,4'-tetrayltetraammonium tetrachloride	231-018-9	>=1- <5%
SECTION 4. First aid measures			
General information			
Symptoms of poisoning may even occur after several hours; therefore provide medical observation for at least 48 hours after the accident.			
After skin contact: Immediately wash with water and soap and rinse thoroughly.			
After eye contact: Rinse opened eye for several minutes under running water.			
After swallowing: Seek immediate medical advice.			
After inhalation: Supply fresh air. If required provide artificial respiration. Keep patient warm. Seek medical advice. In case of unconsciousness place patient on side position for transport.			
SECTION 5. Firefighting measures			
Suitable extinguishing agents			
CO ₂ , ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.			
Special hazards arising from the substance or mixture: Formation of toxic gases is possible during heating or in case of fire.			
Protective equipment: Self contained breathing apparatus and protective clothing.			
SECTION 6. Accidental release measures			
Personal precautions, protective equipment and emergency procedures: Not required.			
Environmental precautions: Do not let product enter drains.			
Methods and materials for containment or cleaning up:			
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).			
Dispose contaminated material as waste according to item 13.			
Ensure adequate ventilation.			
Reference to other sections:			
See Section 7 for information on safe handling.			
See Section 8 for information on personal protective equipment.			
See Section 13 for disposal information.			

SECTION 7. Handling and storage**Handling****Precautions for safe handling:**

Ensure good ventilation/exhaustion at the workplace and prevent formation of aerosols.

Information about protection against explosions and fires:

No special measures required.

Requirements to be met by storerooms and receptacles: Store at -20C.

Information about storage in one common storage facility: Light sensitive, hygroscopic

Further information about storage conditions: Store at -20C in a well-sealed container.

Specific end use (s): No further relevant information available.

SECTION 8. Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

Components with limit values that require monitoring at the workplace:

25322-68-3 α -Hydro-w-hydroxy-poly(oxy-1,2-ethanediyl),n ~3350	
PEL 0	Short term value: 10mg/m ³ Long term value: 10mg/m ³

Additional information: The lists that were valid during the creation were used as basis.

Personal Protective Equipment**General protective and hygienic measures**

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Breathing equipment: Required when dusts are generated

Protection of hands:

Chemical resistant gloves (i.e. nitrile or equivalent)

Eye protection:

Safety glasses, tightly sealed goggles.

Body protection: Protective work clothes (lab coat).

SECTION 9. Physical and chemical properties**General Information****Appearance:**

<i>Form</i>	<i>Solid</i>
<i>Color</i>	<i>Brown</i>
<i>Odor</i>	<i>Odorless</i>
<i>pH-value</i>	<i>Not determined</i>
<i>Flash point</i>	<i>Not applicable</i>
<i>Flammability (solid, gaseous)</i>	<i>Not applicable</i>
<i>Decomposition temperature</i>	<i>Not determined</i>
<i>Auto ignition</i>	<i>Not determined</i>
<i>Danger of explosion</i>	<i>Product is not explosive.</i>
<i>Solubility in / Miscibility with water</i>	<i>Soluble</i>
<i>Solvent contents: N/A</i>	<i>N/A</i>

SECTION 10. Stability and reactivity

Thermal decomposition/conditions to be avoided: No decomposition if used according to specifications.

Incompatible materials: Incompatible material: strong oxidizers, acid materials and metals

Hazardous decomposition products: In the event of fire see section 5

SECTION 11. Toxicological information

Acute toxicity: Oral: No data available. Inhalation: No data available. Dermal: No data available

Primary irritant effect:

Skin: No irritating effect

Eye: No irritating effect

Subacute to chronic toxicity: Carcinogenicity. No ingredient present at levels identified as probable, possible or confirmed human carcinogen

Additional toxicological information: Vomiting, Diarrhea, Dehydration and congestion may occur in internal organs. Hypertonic salt solutions can produce inflammatory reactions in the gastrointestinal tract. Other dangerous properties can not be excluded. This substance should be handled with care.

SECTION 12. Ecological information

The ecological effects have not been thoroughly investigated, but currently none have been identified.

General notes: Water hazard class 2 (self-assessment); hazardous for water.

SECTION 13. Disposal considerations**Waste treatment methods:**

Recommendation: *Should be disposed of with solid waste. Disposal of material in accordance with federal (40 CFR 261) state and local requirements. This product is not considered a RCRA hazardous waste. RCRA hazardous waste – RCRA# D004 (Arsenic)*

Uncleaned packages: Recommendation: *Disposal must be made according to state and federal regulations.*

Recommended cleansing agent: *Water, if necessary with cleansing agents.*

SECTION 14. Transport information**UN-Number**

DOT, ADR, ADN, IMDG, IATA **Void**

UN proper shipping name

DOT, ADR, ADN, IMDG, IATA **Void**

Transport hazard class (es)

DOT, IMDG, IATA, ADR, ADN **Void**

Packing group

DOT, ADR, IMDG, IATA **Void**

Environmental hazards:

Marine pollutant: **None**

Special precautions for user **Not applicable**

Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code **Not applicable**

SECTION 15. Regulatory information	
SARA Section 355 (extremely hazardous substances):	None of the ingredients listed
SARA Section 313 (specific toxic chemical listings)	No ingredients exceed threshold
TCSA (Toxic Substance Control Act):	25322-68-3 <i>a</i> -Hydro-w-
hydroxy-poly(oxy-1,2-ethanediyl), <i>n</i> ~3350	
California Proposition 65 – Chemicals known to cause cancer:	25322-68-3 <i>a</i> -Hydro-w-
hydroxy-poly(oxy-1,2-ethanediyl), <i>n</i> ~3350	
Chemicals known to cause reproductive toxicity for females:	25322-68-3 <i>a</i> -Hydro-w-
hydroxy-poly(oxy-1,2-ethanediyl), <i>n</i> ~3350	
Chemicals known to cause reproductive toxicity for males:	None of the ingredients listed
Chemicals known to cause developmental toxicity:	25322-68-3 <i>a</i> -Hydro-w-
hydroxy-poly(oxy-1,2-ethanediyl), <i>n</i> ~3350	
Carcinogenic categories:	
IARC (International Agency for Research on Cancer):	25322-68-3 <i>a</i> -Hydro-w-
hydroxy-poly(oxy-1,2-ethanediyl), <i>n</i> ~3350	
NTP (National Toxicology Program):	25322-68-3 <i>a</i> -Hhydro-w-
hydroxy-poly(oxy-1,2-ethanediyl), <i>n</i> ~3350	
TLV (Threshold Limit Value established by ACGIH):	25322-68-3 <i>a</i> -Hhydro-w-
hydroxy-poly(oxy-1,2-ethanediyl), <i>n</i> ~3350	
Product related hazard information:	the product has been classified and marked in accordance with regulations on hazardous materials.
Hazard symbols:	Danger
Hazard-determining components of labeling:	25322-68-3 <i>a</i> -Hhydro-w-
hydroxy-poly(oxy-1,2-ethanediyl), <i>n</i> ~3350	
Risk phrases:	20/21/22 Harmful by inhalation, in
contact with skin and if swallowed	
Safety phrases:	
7/9 Keep container in a well-ventilated place.	
23 Do not breathe gas/fumes/vapor/spray.	
36/37 Wear suitable protective clothing and gloves.	
Water hazard class: Water hazard class 2 (Self-assessment):	hazardous for water.
SECTION 16. Other information	
To the best of our knowledge, the information contained herein is accurate. However, Novus Biologicals does not assume any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.	
Abbreviations and acronyms:	
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)	
RID: Règlement international concernant le transport des marchandises dangereuses par de fer (regulations Concerning the International Transport of Dangerous Goods by Rail)	
IMDG: International Maritime Code for Dangerous Goods	
IATA: International Air Transport Association	
ICAO: International Civil Aviation Organization	
ACGIH: American Conference of Governmental Industrial Hygienists	
CAS: Chemical Abstracts Service (division of the American Chemical Society)	
NFPA: National Fire Protection Association (USA)	

SECTION 1. Identification of the substance/mixture and of the company/undertaking**Product name:** Br-dUTP (AHBU16)**Manufacturer/Supplier:**

Novus Biologicals

10771 East Easter Avenue

Centennial, CO 80112, USA

Phone: 1-888-506-6887

Information department: Technical Support**Emergency telephone number:** (800) 424-9300 or 911**SECTION 2. Hazards identification****Classification of the substance or mixture:***This product is not classified according to the Globally Harmonized System (GHS)***Classification according to EC No. 1272/2008***This product does not meet the criteria for classification in any hazard class according to Regulation (EC) no. 1272/2008 on classification, labelling and packaging for substances and mixtures and are below the regulatory threshold limits described by Occupational Safety Health Administration Hazard Communication standard 29 CFR 1910.1200. However a safety data sheet is being supplied for it upon request as it contains a substance for which there is a Union workplace exposure limit.***Classification system:***The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.***Label elements***Labeling according to EU guidelines:**Observe the general safety regulations when handling chemicals**The product is not subject to identification regulations pertaining to regulations on hazardous materials.***Classification system****NFPA ratings (scale 0-4)***Health = 0**Flammability = 0**Reactivity = 0***Other hazards:***This product contains material(s) of animal and human origin which have been rendered inactivated thru chemical fixation methods. Observe general safety guidelines for protection when handling this product*

SECTION 3. Composition/information on ingredients			
Chemical characterization: Mixtures			
<i>Description: Mixture of the substances listed below with nonhazardous additions</i>			
CAS No.	Description	EC No.	%
102212-99-7	BrdUTP	Non- classified constituent	0.1M
SECTION 4. First aid measures			
General information			
<i>No special measures required</i>			
After skin contact: Immediately wash with water and soap and rinse thoroughly.			
After eye contact: Rinse opened eye for several minutes under running water.			
After swallowing: If symptoms persist consult doctor.			
After inhalation: Seek medical treatment in case of complaints.			
SECTION 5. Firefighting measures			
Suitable extinguishing agents			
<i>CO₂, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.</i>			
Special hazards arising from the substance or mixture: No further relevant information available.			
Protective equipment: No special measures required.			
SECTION 6. Accidental release measures			
Personal precautions, protective equipment and emergency procedures: Not required.			
Environmental precautions: Wipe up with damp sponge or mop.			
Methods and materials for containment or cleaning up: No special measures required.			
Reference to other sections:			
<i>See Section 7 for information on safe handling.</i>			
<i>See Section 8 for information on personal protective equipment.</i>			
<i>See Section 13 for disposal information.</i>			
SECTION 7. Handling and storage			
Handling			
Precautions for safe handling: No special measures required.			
Information about protection against explosions and fires: No special measures required.			
Requirements to be met by storerooms and receptacles: Store at -20C.			
Information about storage in one common storage facility: Store away from oxidizing agents.			
Further information about storage conditions: Store at -20C in a well-sealed container.			
Specific end use (s): No further relevant information available.			

SECTION 8. Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: The lists that were valid during the creation were used as basis.

Personal Protective Equipment**General protective and hygienic measures**

The usual precautionary measures for handling chemicals should be followed.

Breathing equipment: Not required.

Protection of hands:

Chemical resistant gloves (i.e. nitrile or equivalent)

Eye protection:

Safety glasses, tightly sealed goggles.

Body protection: Protective work clothes (lab coat).

SECTION 9. Physical and chemical properties**General Information****Appearance:**

Form	Liquid
Color	Clear
Odor	Odorless
pH-value	7.2-7.6
Flash point	Not applicable
Flammability (solid, gaseous)	Not applicable
Ignition temperature	Not determined
Auto ignition	Product is not self-igniting
Danger of explosion	Product is not explosive.
Vapor pressure at 20C (68F)	23 nPa (17 mm Hg)
Density	Not determined
Vapor Density	Not determined
Evaporation rate	Not determined
Solubility in / Miscibility with water	Soluble
Solvent contents:	
Organic solvents	0.0%
Water	50.0%
Other information	No further relevant information available

SECTION 10. Stability and reactivity

Thermal decomposition/conditions to be avoided: No decomposition if used according to specifications.

Incompatible materials: Incompatible material: strong oxidizers.

Hazardous decomposition products: No dangerous decomposition products known

SECTION 11. Toxicological information	
Acute toxicity	
Primary irritant effect:	
Skin: No irritating effect	
Eye: No irritating effect	
Sensitization: No sensitization effects known.	
Additional toxicological information: This product is not subject to OSHA classification according to internally approved calculation methods for preparations.	
When used and handled according to specifications, the product does not have any harmful effects according to our experience and information provided to us.	
SECTION 12. Ecological information	
The ecological effects have not been thoroughly investigated, but currently none have been identified.	
General notes: Generally not hazardous for water.	
SECTION 13. Disposal considerations	
Waste treatment methods:	
Recommendation: Should be disposed of with solid waste. Disposal of material in accordance with federal (40 CFR 261) state and local requirements. This product is not considered a RCRA hazardous waste.	
Uncleaned packages: Recommendation: Disposal must be made according to state and federal regulations.	
Recommended cleansing agent: Water, if necessary with cleansing agents.	
SECTION 14. Transport information	
UN-Number	
DOT, ADR, ADN, IMDG, IATA	Void

UN proper shipping name	
DOT,ADR, ADN, IMDG, IATA	Void

Transport hazard class (es)	
DOT, IMDG, IATA, ADR, ADN	Void

Packing group	
DOT, ADR, IMDG, IATA	Void

Environmental hazards:	
Marine pollutant:	None

Special precautions for user	Not applicable

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	
	Not applicable

SECTION 15. Regulatory information	
SARA Section 355 (extremely hazardous substances):	None of the ingredients listed.
SARA Section 313 (specific toxic chemical listings)	None of the ingredients listed
TCSA (Toxic Substance Control Act): water	7732-18-5
California Proposition 65 – Chemicals known to cause cancer:	None of the ingredients is listed.
Chemicals known to cause reproductive toxicity for females:	None of the ingredients listed.
Chemicals known to cause reproductive toxicity for males:	None of the ingredients listed.
Chemicals known to cause developmental toxicity:	None of the ingredients listed
Carcinogenic categories:	
ARC (International Agency for Research on Cancer):	None of the ingredients listed
NTP (National Toxicology Program):	None of the ingredients listed
TLV (Threshold Limit Value established by ACGIH):	None of the ingredients listed
Product related hazard information:	
Observe the general safety regulations when handling chemicals. The product is not subject to identification regulations pertaining to regulations on hazardous materials	
National regulations – Water hazard class:	Generally not hazardous for water
SECTION 16. Other information	
<p>To the best of our knowledge, the information contained herein is accurate. However, Novus Biologicals does not assume any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.</p> <p>Abbreviations and acronyms: ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) RID: Règlement international concernant le transport des marchandises dangereuses par de fer (regulations Concerning the International Transport of Dangerous Goods by Rail) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association ICAO: International Civil Aviation Organization ACGIH: American Conference of Governmental Industrial Hygienists CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA)</p>	

SECTION 1. Identification of the substance/mixture and of the company/undertaking**Product name:** 200x Conjugate (AHHR22)**Manufacturer/Supplier:**

Novus Biologicals

10771 East Easter Avenue

Centennial, CO 80112, USA

Phone: 1-888-506-6887

Information department: Technical Support**Emergency telephone number:** (800) 424-9300 or 911**SECTION 2. Hazards identification****Classification of the substance or mixture:***This product is not classified according to the Globally Harmonized System (GHS)***Classification according to EC No. 1272/2008***H315, H319, H317: Skin irritation, eye irritation and skin sensitization***Classification system:***The classification was made according to the latest editions of international substances lists expanded upon from company and literature data.***Label elements***Labeling according to EU guidelines:**The product has been classified and marked in accordance with regulations on hazardous materials.***Code letter and hazard designation of product:****Hazard-determining components of labeling:***Mixture of 5-chloro-2-methylisothiazol-3(2H)-one and 2methylisothiazol-3(2H)one. Glycerol***Risk phrases:***20/21/22: Harmful by inhalation, in contact with skin and if swallowed.***Safety phrases:***9 Keep container in a well-ventilated place.**23 Do not breathe gas/fumes/vapor/spray.**36/37 Wear suitable protective clothing and gloves.**60 This material and its container should be disposed of as hazardous waste.***Classification system****NFPA ratings (scale 0-4)**

Health = 2

Flammability = 0

Reactivity = 0

SECTION 3. Composition/information on ingredients			
Chemical characterization: Mixtures			
Description: Mixture of the substances listed below with nonhazardous additions			
CAS No.	Description	EC No.	%
55965-84-9	Mixture of 5-chloro-2-methylisothiazol-3(2H)-one and 2-methylisothiazol-3(2H)-one 	None	0.1-0.25 %
56-81-5	Glycerol	200-289-5	50-60 %
SECTION 4. First aid measures			
General information			
We recommend handling chemicals with care.			
After skin contact: Immediately wash with water and soap and rinse thoroughly.			
After eye contact: Rinse opened eye for several minutes under running water.			
After swallowing: Seek immediate medical advice.			
After inhalation: Supply fresh air. If required provide artificial respiration. Keep patient warm. Seek medical advice. In case of unconsciousness place patient on side position for transport.			
SECTION 5. Firefighting measures			
Suitable extinguishing agents			
CO ₂ , ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.			
Special hazards arising from the substance or mixture: Not known.			
Protective equipment: Respiratory equipment recommended			
SECTION 6. Accidental release measures			
Personal precautions, protective equipment and emergency procedures: Not required.			
Environmental precautions: Wipe up with damp sponge or mop.			
Methods and materials for containment or cleaning up:			
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).			
Dispose contaminated material as waste according to item 13.			
Ensure adequate ventilation.			
Reference to other sections:			
See Section 7 for information on safe handling.			
See Section 8 for information on personal protective equipment.			
See Section 13 for disposal information.			

SECTION 7. Handling and storage**Handling****Precautions for safe handling:**

Ensure good ventilation/exhaustion at the workplace and prevent formation of aerosols.

Information about protection against explosions and fires:

No special measures required.

Requirements to be met by storerooms and receptacles: Store at -20C.

Information about storage in one common storage facility: Keep in a cool, dry well-ventilated area

Further information about storage conditions: Store at -20C in a well-sealed container.

Specific end use (s): No further relevant information available.

SECTION 8. Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

Components with limit values that require monitoring at the workplace:

55965-84-9 5-chloro-2-methylisothiazol-3(2H)-one and 2methylisothiazol-3(2H)-one	
PEL 0	None

Additional information: The lists that were valid during the creation were used as basis.

Personal Protective Equipment**General protective and hygienic measures**

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Breathing equipment: Not required if used in a well-ventilated area.

Protection of hands:

Chemical resistant gloves (i.e. nitrile or equivalent)

Eve protection:

Safety glasses, tightly sealed goggles.

Body protection: Protective work clothes (lab coat).

SECTION 9. Physical and chemical properties	
General Information	
Appearance:	
<i>Form</i>	<i>Liquid</i>
<i>Color</i>	<i>Amber Brown</i>
<i>Odor</i>	<i>Odorless</i>
<i>pH-value</i>	<i>Not applicable</i>
<i>Flash point</i>	<i>Not applicable</i>
<i>Flammability (solid, gaseous)</i>	<i>Not applicable</i>
<i>Decomposition temperature</i>	<i>Not determined</i>
<i>Auto ignition</i>	<i>Not determined</i>
<i>Danger of explosion</i>	<i>Not determined</i>
<i>Solubility in / Miscibility with water</i>	<i>Not determined</i>
<i>Solvent contents:</i>	
<i>None</i>	
SECTION 10. Stability and reactivity	
Thermal decomposition/conditions to be avoided: <i>No decomposition if used according to specifications.</i>	
Incompatible materials: <i>None under normal conditions of use.</i>	
Hazardous decomposition products: <i>No know hazardous decomposition products.</i>	
Additional information:	
<i>None.</i>	
SECTION 11. Toxicological information	
Acute toxicity: LD/LD50 values that are relevant for classification: <i>5-chloro-2-methylisothiazol-3(2H)-one and 2-methylisothiazol-3(2H)-one: Oral/LD50/ 53 mg/kg (rat)=481 mg.kg(rat) 232-249 mg/kg(rat) = 120 mg/kg(rat)</i>	
Primary irritant effect:	
Skin: <i>Irritates skin, may cause sensitization by skin contact</i>	
Eye: <i>Irritates eyes</i>	
Subacute to chronic toxicity: <i>Data are conclusive, but insufficient for classification.</i>	
Additional toxicological information: <i>The product shows the following dangers according to internally approved calculation methods for preparation: Harmful</i>	

SECTION 12. Ecological information

The ecological effects have not been thoroughly investigated, but currently none have been identified.

General notes: Water hazard class 2 (self-assessment); hazardous for water.

SECTION 13. Disposal considerations**Waste treatment methods:**

Recommendation: *Should be disposed of with solid waste. Disposal of material in accordance with federal (40 CFR 261) state and local requirements. This product is not considered a RCRA hazardous waste. RCRA hazardous waste – RCRA# D004 (Arsenic)*

Uncleaned packages: Recommendation: *Disposal must be made according to state and federal regulations.*

Recommended cleansing agent: *Water, if necessary with cleansing agents.*

SECTION 14. Transport information**UN-Number**

DOT, ADR, ADN, IMDG, IATA **Void**

UN proper shipping name

DOT, ADR, ADN, IMDG, IATA **Void**

Transport hazard class (es)

DOT, IMDG, IATA, ADR, ADN **Void**

Packing group

DOT, ADR, IMDG, IATA **Void**

Environmental hazards:

Marine pollutant: **None**

Special precautions for user **Not applicable**

Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code **Not applicable**

SECTION 15. Regulatory information	
SARA Section 355 (extremely hazardous substances):	None of the ingredients listed
SARA Section 313 (specific toxic chemical listings)	None of the ingredients listed
TCSA (Toxic Substance Control Act):	55965-84-9 5-chloro-2-
<i>methylisothiazol-3(2H)-one and 2-methylisothiazol-3(2H)-one</i>	56-81-5 Glycerol
California Proposition 65 – Chemicals known to cause cancer:	None of the ingredients listed.
Chemicals known to cause reproductive toxicity for females:	None of the ingredients listed
Chemicals known to cause reproductive toxicity for males:	None of the ingredients listed
Chemicals known to cause developmental toxicity:	None of the ingredients listed
Carcinogenic categories:	
IARC (International Agency for Research on Cancer):	None of the ingredients listed
NTP (National Toxicology Program):	None of the ingredients listed
TLV (Threshold Limit Value established by ACGIH):	None of the ingredients listed
Product related hazard information:	the product has been classified and marked in accordance with regulations on hazardous materials.
Hazard symbols:	
Hazard-determining components of labeling:	55965-84-9 5-chloro-2-
<i>methylisothiazol-3(2H)-one and 2-methylisothiazol-3(2H)-one</i>	56-81-5 Glycerol
Risk phrases:	20/21/22 Harmful by inhalation, in
<i>contact with skin and if swallowed</i>	
Safety phrases:	
<i>7/9 Keep container in a well-ventilated place.</i>	
<i>23 Do not breathe gas/fumes/vapor/spray.</i>	
<i>36/37 Wear suitable protective clothing and gloves.</i>	
<i>60 This material and container should be disposed of as hazardous waste.</i>	
Water hazard class: Water hazard class 2 (Self-assessment):	<i>hazardous for water.</i>
SECTION 16. Other information	
<i>To the best of our knowledge, the information contained herein is accurate. However, Novus Biologicals does not assume any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.</i>	
Abbreviations and acronyms:	
<i>ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)</i>	
<i>RID: Règlement international concernant le transport des marchandises dangereuses par de fer (regulations Concerning the International Transport of Dangerous Goods by Rail)</i>	
<i>IMDG: International Maritime Code for Dangerous Goods</i>	
<i>IATA: International Air Transport Association</i>	
<i>ICAO: International Civil Aviation Organization</i>	
<i>ACGIH: American Conference of Governmental Industrial Hygienists</i>	
<i>CAS: Chemical Abstracts Service (division of the American Chemical Society)</i>	
<i>NFPA: National Fire Protection Association (USA)</i>	

SECTION 1. Identification of the substance/mixture and of the company/undertaking**Product name:** Proteinase K (AHPK25)**Manufacturer/Supplier:**

Novus Biologicals

10771 East Easter Avenue

Centennial, CO 80112, USA

Phone: 1-888-506-6887

Information department: Technical Support**Emergency telephone number:** (800) 424-9300 or 911**SECTION 2. Hazards identification****Classification of the substance or mixture:***This product is not classified according to the Globally Harmonized System (GHS)***Classification according to EC No. 1272/2008***H315, H319, H317: Skin irritation, eye irritation and skin sensitization. May cause respiratory irritation.***Classification system:***The classification was made according to the latest editions of international substances lists expanded upon from company and literature data.***Label elements**

Labeling according to EU guidelines:

*The product has been classified and marked in accordance with regulations on hazardous materials.***Code letter and hazard designation of product:****Hazard-determining components of labeling:**

Proteinase K

Risk phrases:*20/21/22: Harmful by inhalation, in contact with skin and if swallowed.***Safety phrases:***9 Keep container in a well-ventilated place.**23 Do not breathe gas/fumes/vapor/spray.**36/37 Wear suitable protective clothing and gloves.**60 This material and its container should be disposed of as hazardous waste.***Classification system****NFPA ratings (scale 0-4)**

Health = 2

Flammability = 0

Reactivity = 0

SECTION 3. Composition/information on ingredients			
Chemical characterization: Mixtures			
Description: Mixture of the substances listed below with nonhazardous additions			
CAS No.	Description	EC No.	%
39450-01-6	Proteinase K	None	< 1 %
77-86-1	 Tris	201-064-4	< 1 %
SECTION 4. First aid measures			
General information			
<i>If symptoms persist seek medical advice.</i>			
After skin contact: Immediately wash with water and soap and rinse thoroughly.			
After eye contact: Rinse opened eye for several minutes under running water.			
After swallowing: Clean mouth with water and drink plenty of water.			
After inhalation: Supply fresh air. If required provide artificial respiration. Keep patient warm. Seek medical advice. In case of unconsciousness place patient on side position for transport.			
SECTION 5. Firefighting measures			
Suitable extinguishing agents			
CO2, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.			
Special hazards arising from the substance or mixture: Not known.			
Protective equipment: Respiratory equipment recommended			
SECTION 6. Accidental release measures			
Personal precautions, protective equipment and emergency procedures: Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.			
Environmental precautions: Should not be released into the environment.			
Methods and materials for containment or cleaning up:			
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).			
Dispose contaminated material as waste according to item 13.			
Ensure adequate ventilation.			
Reference to other sections:			
See Section 7 for information on safe handling.			
See Section 8 for information on personal protective equipment.			
See Section 13 for disposal information.			

SECTION 7. Handling and storage**Handling****Precautions for safe handling:**

Ensure good ventilation/exhaustion at the workplace and prevent formation of aerosols.

Information about protection against explosions and fires:

No special measures required.

Requirements to be met by storerooms and receptacles: Store at -20C.

Information about storage in one common storage facility: Keep in a cool, dry well-ventilated area

Further information about storage conditions: Store at -20C in a well-sealed container away from oxidizing agents.

Specific end use (s): No further relevant information available.

SECTION 8. Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

Components with limit values that require monitoring at the workplace:

This product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: The lists that were valid during the creation were used as basis.

Personal Protective Equipment**General protective and hygienic measures**

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Breathing equipment: Not required if used in a well-ventilated area.

Protection of hands:

Chemical resistant gloves (i.e. nitrile or equivalent)

Eye protection:

Safety glasses, tightly sealed goggles.

Body protection: Protective work clothes (lab coat).

SECTION 9. Physical and chemical properties	
General Information	
Appearance:	
<i>Form</i>	<i>Liquid</i>
<i>Color</i>	<i>Clear</i>
<i>Odor</i>	<i>Odorless</i>
<i>pH-value</i>	<i>Not applicable</i>
<i>Flash point</i>	<i>Not applicable</i>
<i>Flammability (solid, gaseous)</i>	<i>Not applicable</i>
<i>Decomposition temperature</i>	<i>Not determined</i>
<i>Auto ignition</i>	<i>Not determined</i>
<i>Danger of explosion</i>	<i>Not determined</i>
<i>Solubility in / Miscibility with water</i>	<i>Soluble in water</i>
<i>Solvent contents:</i> <i>None</i>	
SECTION 10. Stability and reactivity	
Thermal decomposition/conditions to be avoided: <i>No decomposition if used according to specifications.</i>	
Incompatible materials: <i>Excess heat. Avoid dust formation</i>	
Hazardous decomposition products: <i>Carbon monoxide (CO), Carbon dioxide (CO₂)</i>	
Additional information: <i>None.</i>	
SECTION 11. Toxicological information	
Acute toxicity:	
Primary irritant effect:	
Skin: <i>No irritating effect</i>	
Eye: <i>No irritating effect</i>	
Sensitization: <i>No sensitization effects known.</i>	
Additional toxicological information: <i>When used and handled according to specifications, the product does not have any harmful effects according to our experience and information provided to us.</i>	

SECTION 12. Ecological information

The ecological effects have not been thoroughly investigated, but currently none have been identified.

General notes: Water hazard class 2 (self-assessment); hazardous for water.

SECTION 13. Disposal considerations**Waste treatment methods:**

Recommendation: *Should be disposed of with solid waste. Disposal of material in accordance with federal (40 CFR 261) state and local requirements. This product is not considered a RCRA hazardous waste. RCRA hazardous waste – RCRA# D004 (Arsenic)*

Uncleaned packages: Recommendation: *Disposal must be made according to state and federal regulations.*

Recommended cleansing agent: *Water, if necessary with cleansing agents.*

SECTION 14. Transport information**UN-Number**

DOT, ADR, ADN, IMDG, IATA **Void**

UN proper shipping name

DOT, ADR, ADN, IMDG, IATA **Void**

Transport hazard class (es)

DOT, IMDG, IATA, ADR, ADN **Void**

Packing group

DOT, ADR, IMDG, IATA **Void**

Environmental hazards:

Marine pollutant: **None**

Special precautions for user **Not applicable**

Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code **Not applicable**

SECTION 15. Regulatory information

SARA Section 355 (extremely hazardous substances):	None of the ingredients listed
SARA Section 313 (specific toxic chemical listings)	None of the ingredients listed
TCSA (Toxic Substance Control Act):	Not applicable
California Proposition 65 – Chemicals known to cause cancer:	None of the ingredients listed.
Chemicals known to cause reproductive toxicity for females:	None of the ingredients listed
Chemicals known to cause reproductive toxicity for males:	None of the ingredients listed
Chemicals known to cause developmental toxicity:	None of the ingredients listed
Carcinogenic categories:	
IARC (International Agency for Research on Cancer):	None of the ingredients listed
NTP (National Toxicology Program):	None of the ingredients listed
TLV (Threshold Limit Value established by ACGIH):	None of the ingredients listed
Product related hazard information:	the product has been classified and marked in accordance with regulations on hazardous materials.
Hazard symbols:	
Hazard-determining components of labeling:	Proteinase K
Risk phrases:	20/21/22 Harmful by inhalation, in contact with skin and if swallowed
Safety phrases:	
7/9	Keep container in a well-ventilated place.
23	Do not breathe gas/fumes/vapor/spray.
36/37	Wear suitable protective clothing and gloves.
60	This material and container should be disposed of as hazardous waste.
Water hazard class:	Water hazard class 2 (Self-assessment): hazardous for water.

SECTION 16. Other information

To the best of our knowledge, the information contained herein is accurate. However, Novus Biologicals does not assume any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 RID: Règlement international concernant le transport des marchandises dangereuses par de fer (regulations Concerning the International Transport of Dangerous Goods by Rail)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 ICAO: International Civil Aviation Organization
 ACGIH: American Conference of Governmental Industrial Hygienists
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 NFPA: National Fire Protection Association (USA)

SECTION 3. Composition/information on ingredients**Chemical characterization: Mixtures****Description:** Mixture of the substances listed below with nonhazardous additions

CAS No.	Description	EC No.	%
9027-67-2	TdT Enzyme	232-819-6	20,000U/ml

SECTION 4. First aid measures**General information***No special measures required***After skin contact:** Immediately wash with water and soap and rinse thoroughly.**After eye contact:** Rinse opened eye for several minutes under running water.**After swallowing:** If symptoms persist consult doctor.**After inhalation:** Seek medical treatment in case of complaints.**SECTION 5. Firefighting measures****Suitable extinguishing agents***CO₂, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.***Special hazards arising from the substance or mixture:** No further relevant information available.**Protective equipment:** No special measures required.**SECTION 6. Accidental release measures****Personal precautions, protective equipment and emergency procedures:** Not required.**Environmental precautions:** Wipe up with damp sponge or mop.**Methods and materials for containment or cleaning up:** No special measures required.**Reference to other sections:***See Section 7 for information on safe handling.**See Section 8 for information on personal protective equipment.**See Section 13 for disposal information.***SECTION 7. Handling and storage****Handling****Precautions for safe handling:** No special measures required.**Information about protection against explosions and fires:** No special measures required.**Requirements to be met by storerooms and receptacles:** Store at -20C.**Information about storage in one common storage facility:** Store away from oxidizing agents.**Further information about storage conditions:** Store at -20C in a well-sealed container.**Specific end use (s):** No further relevant information available.

SECTION 8. Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: The lists that were valid during the creation were used as basis.

Personal Protective Equipment**General protective and hygienic measures**

The usual precautionary measures for handling chemicals should be followed.

Breathing equipment: Not required.

Protection of hands:

Chemical resistant gloves (i.e. nitrile or equivalent)

Eye protection:

Safety glasses, tightly sealed goggles.

Body protection: Protective work clothes (lab coat).

SECTION 9. Physical and chemical properties**General Information****Appearance:**

Form	Liquid
Color	Clear
Odor	Odorless
pH-value	7.2-7.6
Flash point	Not applicable
Flammability (solid, gaseous)	Not applicable
Ignition temperature	Not determined
Auto ignition	Product is not self-igniting
Danger of explosion	Product is not explosive.
Vapor pressure at 20C (68F)	23 nPa (17 mm Hg)
Density	Not determined
Vapor Density	Not determined
Evaporation rate	Not determined
Solubility in / Miscibility with water	Not miscible or difficult to mix
Solvent contents:	
Organic solvents	0.0%
Water	50.0%
Other information	No further relevant information available

SECTION 10. Stability and reactivity

Thermal decomposition/conditions to be avoided: No decomposition if used according to specifications.

Incompatible materials: Incompatible material: strong oxidizers.

Hazardous decomposition products: No dangerous decomposition products known

SECTION 11. Toxicological information	
Acute toxicity	
Primary irritant effect:	
Skin: No irritating effect	
Eye: No irritating effect	
Sensitization: No sensitization effects known.	
Additional toxicological information: This product is not subject to OSHA classification according to internally approved calculation methods for preparations.	
When used and handled according to specifications, the product does not have any harmful effects according to our experience and information provided to us.	
SECTION 12. Ecological information	
The ecological effects have not been thoroughly investigated, but currently none have been identified.	
General notes: Generally not hazardous for water.	
SECTION 13. Disposal considerations	
Waste treatment methods:	
Recommendation: Should be disposed of with solid waste. Disposal of material in accordance with federal (40 CFR 261) state and local requirements. This product is not considered a RCRA hazardous waste.	
Uncleaned packages: Recommendation: Disposal must be made according to state and federal regulations.	
Recommended cleansing agent: Water, if necessary with cleansing agents.	
SECTION 14. Transport information	
UN-Number	
DOT, ADR, ADN, IMDG, IATA	Void

UN proper shipping name	
DOT,ADR, ADN, IMDG, IATA	Void

Transport hazard class (es)	
DOT, IMDG, IATA, ADR, ADN	Void

Packing group	
DOT, ADR, IMDG, IATA	Void

Environmental hazards:	
Marine pollutant:	None

Special precautions for user	Not applicable

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	
	Not applicable

SECTION 15. Regulatory information	
SARA Section 355 (extremely hazardous substances):	None of the ingredients listed.
SARA Section 313 (specific toxic chemical listings)	None of the ingredients listed
TCSA (Toxic Substance Control Act): water	7732-18-5
California Proposition 65 – Chemicals known to cause cancer:	None of the ingredients is listed.
Chemicals known to cause reproductive toxicity for females:	None of the ingredients listed.
Chemicals known to cause reproductive toxicity for males:	None of the ingredients listed.
Chemicals known to cause developmental toxicity:	None of the ingredients listed
Carcinogenic categories:	
ARC (International Agency for Research on Cancer):	None of the ingredients listed
NTP (National Toxicology Program):	None of the ingredients listed
TLV (Threshold Limit Value established by ACGIH):	None of the ingredients listed
Product related hazard information:	
Observe the general safety regulations when handling chemicals. The product is not subject to identification regulations pertaining to regulations on hazardous materials	
National regulations – Water hazard class:	Generally not hazardous for water
SECTION 16. Other information	
To the best of our knowledge, the information contained herein is accurate. However, Novus Biologicals does not assume any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.	
Abbreviations and acronyms:	
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)	
RID: Règlement international concernant le transport des marchandises dangereuses par de fer (regulations Concerning the International Transport of Dangerous Goods by Rail)	
IMDG: International Maritime Code for Dangerous Goods	
IATA: International Air Transport Association	
ICAO: International Civil Aviation Organization	
ACGIH: American Conference of Governmental Industrial Hygienists	
CAS: Chemical Abstracts Service (division of the American Chemical Society)	
NFPA: National Fire Protection Association (USA)	

SECTION 1. Identification of the substance/mixture and of the company/undertaking**Product name:** 5X Reaction Buffer (AHRXB14)**Manufacturer/Supplier:**

Novus Biologicals

10771 East Easter Avenue

Centennial, CO 80112, USA

Phone: 1-888-506-6887

Information department: Technical Support**Emergency telephone number:** (800) 424-9300 or 911**SECTION 2. Hazards identification****Classification of the substance or mixture:***This product is not classified according to the Globally Harmonized System (GHS)***Classification according to EC No. 1272/2008** Xn ; Harmful*R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.***Classification system:***The classification was made according to the latest editions of international substances lists expanded upon from company and literature data.***Label elements***Labeling according to EU guidelines:**The product has been classified and marked in accordance with regulations on hazardous materials.***Code letter and hazard designation of product:** Xn Harmful**Hazard-determining components of labeling:***Cacodylic acid***Risk phrases:***20/21/22: Harmful by inhalation, in contact with skin and if swallowed.***Safety phrases:***9 Keep container in a well-ventilated place.**23 Do not breathe gas/fumes/vapor/spray.**36/37 Wear suitable protective clothing and gloves.**60 This material and its container should be disposed of as hazardous waste.***Classification system****NFPA ratings (scale 0-4)**

Health = 2

Flammability = 0

Reactivity = 0

SECTION 3. Composition/information on ingredients			
Chemical characterization: Mixtures			
Description: Mixture of the substances listed below with nonhazardous additions			
CAS No.	Description	EC No.	%
75-60-5	Cacodylic acid  Xn R40  F H302  H311; H331	200-883-4	0.2%

SECTION 4. First aid measures
General information <i>Symptoms of poisoning may even occur after several hours; therefore provide medical observation for at least 48 hours after the accident.</i> After skin contact: Immediately wash with water and soap and rinse thoroughly. After eye contact: Rinse opened eye for several minutes under running water. After swallowing: Seek immediate medical advice. After inhalation: Supply fresh air. If required provide artificial respiration. Keep patient warm. Seek medical advice. In case of unconsciousness place patient on side position for transport.

SECTION 5. Firefighting measures
Suitable extinguishing agents CO ₂ , ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam. Special hazards arising from the substance or mixture: Formation of toxic gases is possible during heating or in case of fire. Protective equipment: No special measures required.

SECTION 6. Accidental release measures
Personal precautions, protective equipment and emergency procedures: Not required. Environmental precautions: Wipe up with damp sponge or mop. Methods and materials for containment or cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders). Dispose contaminated material as waste according to item 13. Ensure adequate ventilation. Reference to other sections: See Section 7 for information on safe handling. See Section 8 for information on personal protective equipment. See Section 13 for disposal information.

SECTION 7. Handling and storage**Handling****Precautions for safe handling:**

Ensure good ventilation/exhaustion at the workplace and prevent formation of aerosols.

Information about protection against explosions and fires:

No special measures required.

Requirements to be met by storerooms and receptacles: Store at 2-8C.

Information about storage in one common storage facility: Store away from oxidizing agents.

Further information about storage conditions: Store at 2-8C in a well-sealed container.

Specific end use (s): No further relevant information available.

SECTION 8. Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

Components with limit values that require monitoring at the workplace:

75-60-5 cacodylic acid	
PEL 0	Short term value: 5mg/m ³ Long term value: 5mg/m ³ TWA 0.5 MG(As)/M3

Additional information: The lists that were valid during the creation were used as basis.

Personal Protective Equipment**General protective and hygienic measures**

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Breathing equipment: Not required.

Protection of hands:

Chemical resistant gloves (i.e. nitrile or equivalent)

Eye protection:

Safety glasses, tightly sealed goggles.

Body protection: Protective work clothes (lab coat).

SECTION 9. Physical and chemical properties	
General Information	
Appearance:	
Form	Liquid
Color	Pale Pink
Odor	Odorless
pH-value	6.60 +/- 0.05
Flash point	Not applicable
Flammability (solid, gaseous)	Not applicable
Decomposition temperature	Not determined
Auto ignition	Product is not self-igniting
Danger of explosion	Product is not explosive.
Solubility in / Miscibility with water	Soluble
Solvent contents:	
Organic solvents	0.0%
Water	99.8%
Other information	No further relevant information available.
SECTION 10. Stability and reactivity	
Thermal decomposition/conditions to be avoided: No decomposition if used according to specifications.	
Incompatible materials: Incompatible material: strong oxidizers.	
Hazardous decomposition products: Carbon monoxide (CO) and carbon dioxide (CO ₂). Arsenic compounds	
SECTION 11. Toxicological information	
Acute toxicity: LD/LD50 values that are relevant for classification: 75-60-5 cacodylic acid: Oral/LD50/ 644 mg/kg (rat)	
Primary irritant effect:	
Skin: No irritating effect	
Eye: No irritating effect	
Subacute to chronic toxicity: Target organs: kidneys, heart, brain, skin, bone marrow, liver and nerves.	
Additional toxicological information: The product shows the following dangers according to internally approved calculation methods for preparation: Harmful	
SECTION 12. Ecological information	
The ecological effects have not been thoroughly investigated, but currently none have been identified. General notes: Water hazard class 2 (self-assessment); hazardous for water.	
SECTION 13. Disposal considerations	
Waste treatment methods:	
Recommendation: Should be disposed of with solid waste. Disposal of material in accordance with federal (40 CFR 261) state and local requirements. This product is not considered a RCRA hazardous waste. RCRA hazardous waste – RCRA# D004 (Arsenic)	
Uncleaned packages: Recommendation: Disposal must be made according to state and federal regulations.	
Recommended cleansing agent: Water, if necessary with cleansing agents.	

SECTION 14. Transport information	
UN-Number DOT, ADR, ADN, IMDG, IATA	Void

UN proper shipping name DOT,ADR, ADN, IMDG, IATA	Void

Transport hazard class (es) DOT, IMDG, IATA, ADR, ADN	Void

Packing group DOT, ADR, IMDG, IATA	Void

Environmental hazards: Marine pollutant:	None

Special precautions for user	Not applicable

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable

SECTION 15. Regulatory information	
SARA Section 355 (extremely hazardous substances):	None of the ingredients listed
SARA Section 313 (specific toxic chemical listings)	75-60-5 cacodylic acid
TCSA (Toxic Substance Control Act):	All ingredients are listed
California Proposition 65 – Chemicals known to cause cancer:	75-60-5 cacodylic acid.
Chemicals known to cause reproductive toxicity for females:	None of the ingredients listed
Chemicals known to cause reproductive toxicity for males:	None of the ingredients listed
Chemicals known to cause developmental toxicity:	None of the ingredients listed
Carcinogenic categories:	
IARC (International Agency for Research on Cancer):	75-60-5 cacodylic acid Group 1 7646-79-9 cobalt dichloride 2B
NTP (National Toxicology Program):	None of the ingredients listed
TLV (Threshold Limit Value established by ACGIH):	None of the ingredients listed
Product related hazard information:	the product has been classified and marked in accordance with regulations on hazardous materials.
Hazard symbols:	Xn Harmful
Hazard-determining components of labeling:	cacodylic acid
Risk phrases:	20/21/22 Harmful by inhalation, in contact with skin and if swallowed
Safety phrases:	
7/9	Keep container in a well-ventilated place.
23	Do not breathe gas/fumes/vapor/spray.
36/37	Wear suitable protective clothing and gloves.
60	This material and container should be disposed of as hazardous waste.
Water hazard class:	Water hazard class 2 (Self-assessment): hazardous for water.

SECTION 16. Other information

To the best of our knowledge, the information contained herein is accurate. However, Novus Biologicals does not assume any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par de fer (regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

ACGIH: American Conference of Governmental Industrial Hygienists

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

SECTION 1. Identification of the substance/mixture and of the company/undertaking**Product name:** Anti-BrdU Biotin mAb (AHBIO18)**Manufacturer/Supplier:**

Novus Biologicals

10771 East Easter Avenue

Centennial, CO 80112, USA

Phone: 1-888-506-6887

Information department: Technical Support**Emergency telephone number:** (800) 424-9300 or 911**SECTION 2. Hazards identification****Classification of the substance or mixture:***This product is not classified according to the Globally Harmonized System (GHS)***Classification according to EC No. 1272/2008***This product does not meet the criteria for classification in any hazard class according to Regulation (EC) no. 1272/2008 on classification, labelling and packaging for substances and mixtures and are below the regulatory threshold limits described by Occupational Safety Health Administration Hazard Communication standard 29 CFR 1910.1200. However a safety data sheet is being supplied for it upon request as it contains a substance for which there is a Union workplace exposure limit.***Classification system:***The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.***Label elements***Labeling according to EU guidelines:**Observe the general safety regulations when handling chemicals**The product is not subject to identification regulations pertaining to regulations on hazardous materials.***Classification system****NFPA ratings (scale 0-4)***Health = 0**Flammability = 0**Reactivity = 0***Other hazards:***This product contains material(s) of animal and human origin which have been rendered inactivated thru chemical fixation methods. Observe general safety guidelines for protection when handling this product*

SECTION 3. Composition/information on ingredients**Chemical characterization: Mixtures***Description: Mixture of the substances listed below with nonhazardous additions*

CAS No.	Description	EC No.	%
26628-22-8	Sodium Azide	247-852-1	0.05%

SECTION 4. First aid measures**General information***No special measures required***After skin contact:** *Immediately wash with water and soap and rinse thoroughly.***After eye contact:** *Rinse opened eye for several minutes under running water.***After swallowing:** *If symptoms persist consult doctor.***After inhalation:** *Seek medical treatment in case of complaints.***SECTION 5. Firefighting measures****Suitable extinguishing agents***CO₂, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.***Special hazards arising from the substance or mixture:** *Nitrogen oxides (NO_x)***Protective equipment:** *No special measures required.***SECTION 6. Accidental release measures****Personal precautions, protective equipment and emergency procedures:** *Not required.***Environmental precautions:** *Wipe up with damp sponge or mop.***Methods and materials for containment or cleaning up:** *No special measures required.***Reference to other sections:***See Section 7 for information on safe handling.**See Section 8 for information on personal protective equipment.**See Section 13 for disposal information.***SECTION 7. Handling and storage****Handling****Precautions for safe handling:** *No special measures required.***Information about protection against explosions and fires:** *No special measures required.***Requirements to be met by storerooms and receptacles:** *Store at 4C.***Information about storage in one common storage facility:** *Store away from oxidizing agents as well as heavy metal compounds.***Further information about storage conditions:** *Store in cool, dry conditions in well-sealed container.***Specific end use (s):** *No further relevant information available.*

SECTION 8. Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: The lists that were valid during the creation were used as basis.

Personal Protective Equipment**General protective and hygienic measures**

The usual precautionary measures for handling chemicals should be followed.

Breathing equipment: Not required.

Protection of hands:

Chemical resistant gloves (i.e. nitrile or equivalent)

Eye protection:

Safety glasses, tightly sealed goggles.

Body protection: Protective work clothes (lab coat).

SECTION 9. Physical and chemical properties**General Information****Appearance:**

Form	Liquid
Color	Clear
Odor	Odorless
pH-value	7.2-7.6
Flash point	Not applicable
Flammability (solid, gaseous)	Not applicable
Ignition temperature	Not determined
Auto ignition	Product is not self-igniting
Danger of explosion	Product is not explosive.
Vapor pressure at 20C (68F)	23 nPa (17 mm Hg)
Density	Not determined
Vapor Density	Not determined
Evaporation rate	Not determined
Solubility in / Miscibility with water	Soluble
Solvent contents:	
Organic solvents	0.0%
Water	89.8%
Other information	No further relevant information available

SECTION 10. Stability and reactivity

Thermal decomposition/conditions to be avoided: No decomposition if used according to specifications.

Incompatible materials:

Incompatible material: strong oxidizers.

Incompatible material: acidic materials and metals

No further relevant information available

Hazardous decomposition products: Nitrogen oxides (NO_x).

Additional information:

Sodium azide is present in this product. Contact with acidic solutions and metal compounds over time may form potentially explosive metal azides. Should any of this material be introduced into a sanitary sewer system, flush with copious amounts of water

SECTION 11. Toxicological information**Acute toxicity****Primary irritant effect:**

Skin: No irritating effect

Eye: No irritating effect

Sensitization: No sensitization effects known.

Additional toxicological information: This product is not subject to OSHA classification according to internally approved calculation methods for preparations.

When used and handled according to specifications, the product does not have any harmful effects according to our experience and information provided to us.

SECTION 12. Ecological information

The ecological effects have not been thoroughly investigated, but currently none have been identified.

General notes: Generally not hazardous for water.

SECTION 13. Disposal considerations**Waste treatment methods:**

Recommendation: Should be disposed of with solid waste. Disposal of material in accordance with federal (40 CFR 261) state and local requirements. This product is not considered a RCRA hazardous waste.

Uncleaned packages: Recommendation: Disposal must be made according to state and federal regulations.

Recommended cleansing agent: Water, if necessary with cleansing agents.

SECTION 14. Transport information**UN-Number**

DOT, ADR, ADN, IMDG, IATA *Void*

UN proper shipping name

DOT,ADR, ADN, IMDG, IATA *Void*

Transport hazard class (es)

DOT, IMDG, IATA, ADR, ADN *Void*

Packing group

DOT, ADR, IMDG, IATA *Void*

Environmental hazards:

Marine pollutant: *None*

Special precautions for user *Not applicable*

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code *Not applicable*

SECTION 15. Regulatory information	
SARA Section 355 (extremely hazardous substances):	None of the ingredients listed.
SARA Section 313 (specific toxic chemical listings)	None of the ingredients listed
TCSA (Toxic Substance Control Act):	7647-14-5 Sodium Chloride 7558-80-7 Sodium Phosphate, monobasic 26628-22-8 Sodium azide 7732-18-5 water
California Proposition 65 – Chemicals known to cause cancer:	None of the ingredients is listed.
Chemicals known to cause reproductive toxicity for females:	None of the ingredients listed.
Chemicals known to cause reproductive toxicity for males:	None of the ingredients listed.
Chemicals known to cause developmental toxicity:	None of the ingredients listed
Carcinogenic categories:	
ARC (International Agency for Research on Cancer):	None of the ingredients listed
NTP (National Toxicology Program):	None of the ingredients listed
TLV (Threshold Limit Value established by ACGIH):	26628-22-8 Sodium azide A4
Product related hazard information:	Observe the general safety regulations when handling chemicals. The product is not subject to identification regulations pertaining to regulations on hazardous materials
National regulations – Water hazard class:	Generally not hazardous for water
SECTION 16. Other information	
<p>To the best of our knowledge, the information contained herein is accurate. However, Novus Biologicals does not assume any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.</p> <p>Abbreviations and acronyms: ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) RID: Règlement international concernant le transport des marchandises dangereuses par de fer (regulations Concerning the International Transport of Dangerous Goods by Rail) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association ICAO: International Civil Aviation Organization ACGIH: American Conference of Governmental Industrial Hygienists CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA)</p>	

SECTION 1. Identification of the substance/mixture and of the company/undertaking**Product name:** Blocking Buffer (AHBB23)**Manufacturer/Supplier:**

Novus Biologicals

10771 East Easter Avenue

Centennial, CO 80112, USA

Phone: 1-888-506-6887

Information department: Technical Support**Emergency telephone number:** (800) 424-9300 or 911**SECTION 2. Hazards identification****Classification of the substance or mixture:***This product is not classified according to the Globally Harmonized System (GHS)***Classification according to EC No. 1272/2008***H315, H319, H335: Skin irritation, eye irritation and skin sensitization. May cause respiratory irritation.***Classification system:***The classification was made according to the latest editions of international substances lists expanded upon from company and literature data.***Label elements***Labeling according to EU guidelines:**The product has been classified and marked in accordance with regulations on hazardous materials.***Code letter and hazard designation of product:****Hazard-determining components of labeling:***Antibiotic Antimycotic***Risk phrases:***20/21/22: Harmful by inhalation, in contact with skin and if swallowed.***Safety phrases:***9 Keep container in a well-ventilated place.**23 Do not breathe gas/fumes/vapor/spray.**36/37 Wear suitable protective clothing and gloves.**60 This material and its container should be disposed of as hazardous waste.***Classification system****NFPA ratings (scale 0-4)**

Health = 2

Flammability = 0

Reactivity = 0

SECTION 3. Composition/information on ingredients			
Chemical characterization: Mixtures			
<i>Description: Mixture of the substances listed below with nonhazardous additions</i>			
CAS No.	Description	EC No.	%
9048-46-8	BSA FRACTION V CE PROT FREE	232-936-2	< 1%
69-57-8	Penicillin G Sodium Salt		< 1%
3810-74-0	Streptomycin sulfate	223-286-0	
SECTION 4. First aid measures			
General information			
<i>No special measures required</i>			
After skin contact: Immediately wash with water and soap and rinse thoroughly.			
After eye contact: Rinse opened eye for several minutes under running water.			
After swallowing: If symptoms persist consult doctor.			
After inhalation: Seek medical treatment in case of complaints.			
SECTION 5. Firefighting measures			
Suitable extinguishing agents			
<i>CO₂, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.</i>			
Special hazards arising from the substance or mixture: No further relevant information available.			
Protective equipment: No special measures required.			
SECTION 6. Accidental release measures			
Personal precautions, protective equipment and emergency procedures: Not required.			
Environmental precautions: Wipe up with damp sponge or mop.			
Methods and materials for containment or cleaning up: No special measures required.			
Reference to other sections:			
<i>See Section 7 for information on safe handling.</i>			
<i>See Section 8 for information on personal protective equipment.</i>			
<i>See Section 13 for disposal information.</i>			
SECTION 7. Handling and storage			
Handling			
Precautions for safe handling: No special measures required.			
Information about protection against explosions and fires: No special measures required.			
Requirements to be met by storerooms and receptacles: Store at -15 to -25C.			
Information about storage in one common storage facility: Store away from oxidizing agents.			
Further information about storage conditions: Store at -15 to -25C in a well-sealed container.			
Specific end use (s): No further relevant information available.			

SECTION 8. Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: The lists that were valid during the creation were used as basis.

Personal Protective Equipment**General protective and hygienic measures**

The usual precautionary measures for handling chemicals should be followed.

Breathing equipment: Not required.

Protection of hands:

Chemical resistant gloves (i.e. nitrile or equivalent)

Eye protection:

Safety glasses, tightly sealed goggles.

Body protection: Protective work clothes (lab coat).

SECTION 9. Physical and chemical properties**General Information****Appearance:**

Form	Liquid
Color	White opaque
Odor	Odorless
pH-value	Not applicable
Flash point	Not applicable
Flammability (solid, gaseous)	Not applicable
Ignition temperature	Not determined
Auto ignition	Product is not self-igniting
Danger of explosion	Product is not explosive.
Vapor pressure at 20C (68F)	Not determined
Density	Not determined
Vapor Density	Not determined
Evaporation rate	Not determined
Solubility in / Miscibility with water	Soluble
Solvent contents:	
Organic solvents	0.0%
Water	89.8%
Other information	No further relevant information available

SECTION 10. Stability and reactivity

Thermal decomposition/conditions to be avoided: No decomposition if used according to specifications.

Incompatible materials: Incompatible material: strong oxidizers.

Hazardous decomposition products: No dangerous decomposition products known

SECTION 11. Toxicological information	
Acute toxicity	
Primary irritant effect:	
Skin: Inconclusive data.	
Eye: Inconclusive data.	
Sensitization: May cause sensitization.	
Additional toxicological information: This product is not subject to OSHA classification according to internally approved calculation methods for preparations.	
When used and handled according to specifications, the product does not have any harmful effects according to our experience and information provided to us.	
SECTION 12. Ecological information	
The ecological effects have not been thoroughly investigated, but currently none have been identified.	
General notes: Generally not hazardous for water.	
SECTION 13. Disposal considerations	
Waste treatment methods:	
Recommendation: Should be disposed of with solid waste. Disposal of material in accordance with federal (40 CFR 261) state and local requirements. This product is not considered a RCRA hazardous waste.	
Uncleaned packages: Recommendation: Disposal must be made according to state and federal regulations.	
Recommended cleansing agent: Water, if necessary with cleansing agents.	
SECTION 14. Transport information	
UN-Number	
DOT, ADR, ADN, IMDG, IATA	Void

UN proper shipping name	
DOT,ADR, ADN, IMDG, IATA	Void

Transport hazard class (es)	
DOT, IMDG, IATA, ADR, ADN	Void

Packing group	
DOT, ADR, IMDG, IATA	Void

Environmental hazards:	
Marine pollutant:	None

Special precautions for user	Not applicable

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	
	Not applicable

SECTION 15. Regulatory information	
SARA Section 355 (extremely hazardous substances):	None of the ingredients listed.
SARA Section 313 (specific toxic chemical listings)	None of the ingredients listed
TCSA (Toxic Substance Control Act): water	7732-18-5
California Proposition 65 – Chemicals known to cause cancer:	3810-74-0 Streptomycin sulfate <1%
Chemicals known to cause reproductive toxicity for females:	None of the ingredients listed.
Chemicals known to cause reproductive toxicity for males:	None of the ingredients listed.
Chemicals known to cause developmental toxicity:	None of the ingredients listed
Carcinogenic categories:	
ARC (International Agency for Research on Cancer):	None of the ingredients listed
NTP (National Toxicology Program):	None of the ingredients listed
TLV (Threshold Limit Value established by ACGIH):	None of the ingredients listed
Product related hazard information:	
Observe the general safety regulations when handling chemicals. The product is not subject to identification regulations pertaining to regulations on hazardous materials	
National regulations – Water hazard class:	Generally not hazardous for water
SECTION 16. Other information	
To the best of our knowledge, the information contained herein is accurate. However, Novus Biologicals does not assume any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.	
Abbreviations and acronyms:	
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)	
RID: Règlement international concernant le transport des marchandises dangereuses par de fer (regulations Concerning the International Transport of Dangerous Goods by Rail)	
IMDG: International Maritime Code for Dangerous Goods	
IATA: International Air Transport Association	
ICAO: International Civil Aviation Organization	
ACGIH: American Conference of Governmental Industrial Hygienists	
CAS: Chemical Abstracts Service (division of the American Chemical Society)	
NFPA: National Fire Protection Association (USA)	

SECTION 1. Identification of the substance/mixture and of the company/undertaking**Product name:** Methyl Green (AHMG21)**Manufacturer/Supplier:**

Novus Biologicals

10771 East Easter Avenue

Centennial, CO 80112, USA

Phone: 1-888-506-6887

Information department: Technical Support**Emergency telephone number:** (800) 424-9300 or 911**SECTION 2. Hazards identification****Classification of the substance or mixture:***This product is not classified according to the Globally Harmonized System (GHS)***Classification according to EC No. 1272/2008***H315, H319, H317: Skin irritation, eye irritation and skin sensitization. May cause respiratory irritation.***Classification system:***The classification was made according to the latest editions of international substances lists expanded upon from company and literature data.***Label elements***Labeling according to EU guidelines:**The product has been classified and marked in accordance with regulations on hazardous materials.***Code letter and hazard designation of product:****Hazard-determining components of labeling:**

Methyl Green

Risk phrases:*20/21/22: Harmful by inhalation, in contact with skin and if swallowed.***Safety phrases:***9 Keep container in a well-ventilated place.**23 Do not breathe gas/fumes/vapor/spray.**36/37 Wear suitable protective clothing and gloves.**60 This material and its container should be disposed of as hazardous waste.***Classification system****NFPA ratings (scale 0-4)**

Health = 2

Flammability = 0

Reactivity = 0

SECTION 3. Composition/information on ingredients			
Chemical characterization: Mixtures			
Description: Mixture of the substances listed below with nonhazardous additions			
CAS No.	Description	EC No.	%
7114-03-6	Methyl Green 	230-415-4	< 1 %
SECTION 4. First aid measures			
General information			
<i>If symptoms persist seek medical advice.</i>			
After skin contact: Immediately wash with water and soap and rinse thoroughly.			
After eye contact: Rinse opened eye for several minutes under running water.			
After swallowing: Clean mouth with water and drink plenty of water.			
After inhalation: Supply fresh air. If required provide artificial respiration. Keep patient warm. Seek medical advice. In case of unconsciousness place patient on side position for transport.			
SECTION 5. Firefighting measures			
Suitable extinguishing agents			
CO ₂ , ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.			
Special hazards arising from the substance or mixture: Not known.			
Protective equipment: Respiratory equipment recommended			
SECTION 6. Accidental release measures			
Personal precautions, protective equipment and emergency procedures: Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.			
Environmental precautions: Should not be released into the environment.			
Methods and materials for containment or cleaning up:			
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).			
Dispose contaminated material as waste according to item 13.			
Ensure adequate ventilation.			
Reference to other sections:			
See Section 7 for information on safe handling.			
See Section 8 for information on personal protective equipment.			
See Section 13 for disposal information.			

SECTION 7. Handling and storage**Handling****Precautions for safe handling:**

Ensure good ventilation/exhaustion at the workplace and prevent formation of aerosols.

Information about protection against explosions and fires:

No special measures required.

Requirements to be met by storerooms and receptacles: Store at 4-8C.

Information about storage in one common storage facility: Keep in a cool, dry well-ventilated area

Further information about storage conditions: Store at 4-8C in a well-sealed container away from oxidizing agents.

Specific end use (s): No further relevant information available.

SECTION 8. Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

Components with limit values that require monitoring at the workplace:

This product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: The lists that were valid during the creation were used as basis.

Personal Protective Equipment**General protective and hygienic measures**

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Breathing equipment: Not required if used in a well-ventilated area.

Protection of hands:

Chemical resistant gloves (i.e. nitrile or equivalent)

Eve protection:

Safety glasses, tightly sealed goggles.

Body protection: Protective work clothes (lab coat).

SECTION 9. Physical and chemical properties	
General Information	
Appearance:	
<i>Form</i>	<i>Liquid</i>
<i>Color</i>	<i>Dark Blue/Green</i>
<i>Odor</i>	<i>Odorless</i>
<i>pH-value</i>	<i>Not applicable</i>
<i>Flash point</i>	<i>Not determined</i>
<i>Flammability (solid, gaseous)</i>	<i>Not applicable</i>
<i>Decomposition temperature</i>	<i>Not determined</i>
<i>Auto ignition</i>	<i>Not determined</i>
<i>Danger of explosion</i>	<i>Not determined</i>
<i>Solubility in / Miscibility with water</i>	<i>Soluble</i>
<i>Solvent contents:</i>	
<i>Water</i>	<i>99.7%</i>
SECTION 10. Stability and reactivity	
Thermal decomposition/conditions to be avoided: <i>No decomposition if used according to specifications.</i>	
Incompatible materials: <i>Strong oxidizing agents.</i>	
Hazardous decomposition products: <i>Carbon oxides, nitrogen oxides, hydrogen chloride gas, hydrogen bromide gas, zinc oxides</i>	
Additional information:	
<i>None.</i>	
SECTION 11. Toxicological information	
Acute toxicity: <i>No data available</i>	
Primary irritant effect:	
Skin: <i>May have irritating effect</i>	
Eye: <i>May have irritating effect</i>	
Sensitization: <i>No sensitization effects known.</i>	
Additional toxicological information: <i>When used and handled according to specifications, the product does not have any harmful effects according to our experience and information provided to us.</i>	

SECTION 12. Ecological information

The ecological effects have not been thoroughly investigated, but currently none have been identified.

General notes: Water hazard class 2 (self-assessment); hazardous for water.

SECTION 13. Disposal considerations**Waste treatment methods:**

Recommendation: *Should be disposed of with solid waste. Disposal of material in accordance with federal (40 CFR 261) state and local requirements. This product is not considered a RCRA hazardous waste. RCRA hazardous waste – RCRA# D004 (Arsenic)*

Uncleaned packages: Recommendation: *Disposal must be made according to state and federal regulations.*

Recommended cleansing agent: *Water, if necessary with cleansing agents.*

SECTION 14. Transport information**UN-Number**

DOT, ADR, ADN, IMDG, IATA **Void**

UN proper shipping name

DOT, ADR, ADN, IMDG, IATA **Void**

Transport hazard class (es)

DOT, IMDG, IATA, ADR, ADN **Void**

Packing group

DOT, ADR, IMDG, IATA **Void**

Environmental hazards:

Marine pollutant: **None**

Special precautions for user **Not applicable**

Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code **Not applicable**

SECTION 15. Regulatory information**SARA Section 355 (extremely hazardous substances):**

None of the ingredients listed

SARA Section 313 (specific toxic chemical listings)

Methyl Green Cas no. 7114-03-6

TCSA (Toxic Substance Control Act):

7732-18-5

water

California Proposition 65 – Chemicals known to cause cancer:

None of the ingredients listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients listed

Chemicals known to cause reproductive toxicity for males:

None of the ingredients listed

Chemicals known to cause developmental toxicity:

None of the ingredients listed

Carcinogenic categories:**IARC (International Agency for Research on Cancer):**

None of the ingredients listed

NTP (National Toxicology Program):

None of the ingredients listed

TLV (Threshold Limit Value established by ACGIH):

None of the ingredients listed

Product related hazard information: the product has been classified and marked in accordance with regulations on hazardous materials.**Hazard symbols:****Hazard-determining components of labeling:**

Methyl Green

Risk phrases:

20/21/22 Harmful by inhalation, in

contact with skin and if swallowed

Safety phrases:

7/9 Keep container in a well-ventilated place.

23 Do not breathe gas/fumes/vapor/spray.

36/37 Wear suitable protective clothing and gloves.

60 This material and container should be disposed of as hazardous waste.

Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.**SECTION 16. Other information**

To the best of our knowledge, the information contained herein is accurate. However, Novus Biologicals does not assume any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par de fer (regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

ACGIH: American Conference of Governmental Industrial Hygienists

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